



LX Laser Extensometer

LX Laser Extensometer Features

EXCEPTIONAL ACCURACY

- » Digital and continuous analog outputs produce high integrity data
- » Non-contact measuring system eliminates stress concentrations and extensometer weight error

HIGH RELIABILITY

- » Simple design with no external moving parts
- » Eliminates operator errors due to mounting and alignment of conventional clip-on extensometers

VERSATILITY

- » Continuously adjustable gage lengths
- » Supports both Metric or American Customary gage lengths
- » Continuous strain measurement of entire test including break region.
- » Reduced test set-up time (includes tripod mounting)

The LX Laser Extensometer is a highly accurate, non-contact extensometer. This extensometer is ideal for fragile specimens, those susceptible to localized damage, and also specimens that release large amounts of stored energy during breaks. It will meet all the strain measuring needs of materials like plastics, rubber, films, fibers, textiles, and specimens not suited for contacting extensometry. It uses state-of-the-art scanning technologies yet is easy to operate. And it can often outperform comparable video products.

The LX measures extension or strain by scanning the specimen and detecting the location of reflective tape markings. As the marks move during the test, the laser tracks and records their exact position.

LX 500 High Resolution Laser

This high performance device is completely self-contained, easily transportable, and easy to use with its digital display and 4 button keypad. It can be operated from the rear control panel or remotely via the RS-232 interface. The unique scanning laser beam technique used to measure elongation entirely from one side of the specimen eliminates the need for a separate receiver mounted on the opposite side of the specimen. For applications not requiring more than 380 mm (15.0 in) of travel, you won't find a better unit.

LX 500 High Resolution Laser Features

- » Meets ASTM B1 extensometer classification (25 mm/1 in. and longer gage length)
- » Certified for compliance with the Center for Devices and Radiological Health as a Class II product
- » CE certified
- » Selectable averaging of 2 to 512 scans
- » Measures the initial gage length of the specimen directly
- » Can measure strain simultaneously over 3 segments within the specimen's gage length
- » Measurements are updated 100 times per second
- » Analog output port for closed loop strain control or for input to a data acquisition board, chart recorder, etc.
- » Parallel beam design accommodates operation through chamber glass (up to two panes of optical quality), a clear bath, water, etc.



LX 500 High Resolution Laser Extensometer

LX 500 High Resolution Laser Specifications

Model	Measurement Range	Resolution	Non-Linearity (Maximum)	Repeatability	Analog Output	Part Numbers*	
						115V±10%	230V±10%
LX 500	8-127 mm (0.3-5.0 in)	0.001 mm (0.0001 in)	±0.025 mm (±0.001 in)	±0.003 mm (±0.0001 in)	16 bit selectable range, ±5V full scale	055-283-101	055-283-102

* Includes tripod, mounting plates, instruction manual, line cord, tripod head and 1/8" x 30' reflective tape.

Dimensions

Model	Length	Width	Height	Weight
LX 500	381 mm (15 in)	114 mm (4.5 in)	180 mm (7.1 in)	5.9 kg (13 lb)

** Dimension is approximate.

*** Weight is approximate.

Optional Reflective Tape

Width x Length	Temperature	Part Numbers
3.1 mm x 9 m (1/8 in x 30 ft)	-40 to 80° C (-40 to 175° F)	100-007-694
6.3 mm x 9 m (1/4 in x 30 ft)	-40 to 80° C (-40 to 175° F)	100-007-695
2.5 mm x 9 m (0.1 in x 30 ft)	-40 to 480° C (-40 to 900° F)	100-007-696



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